

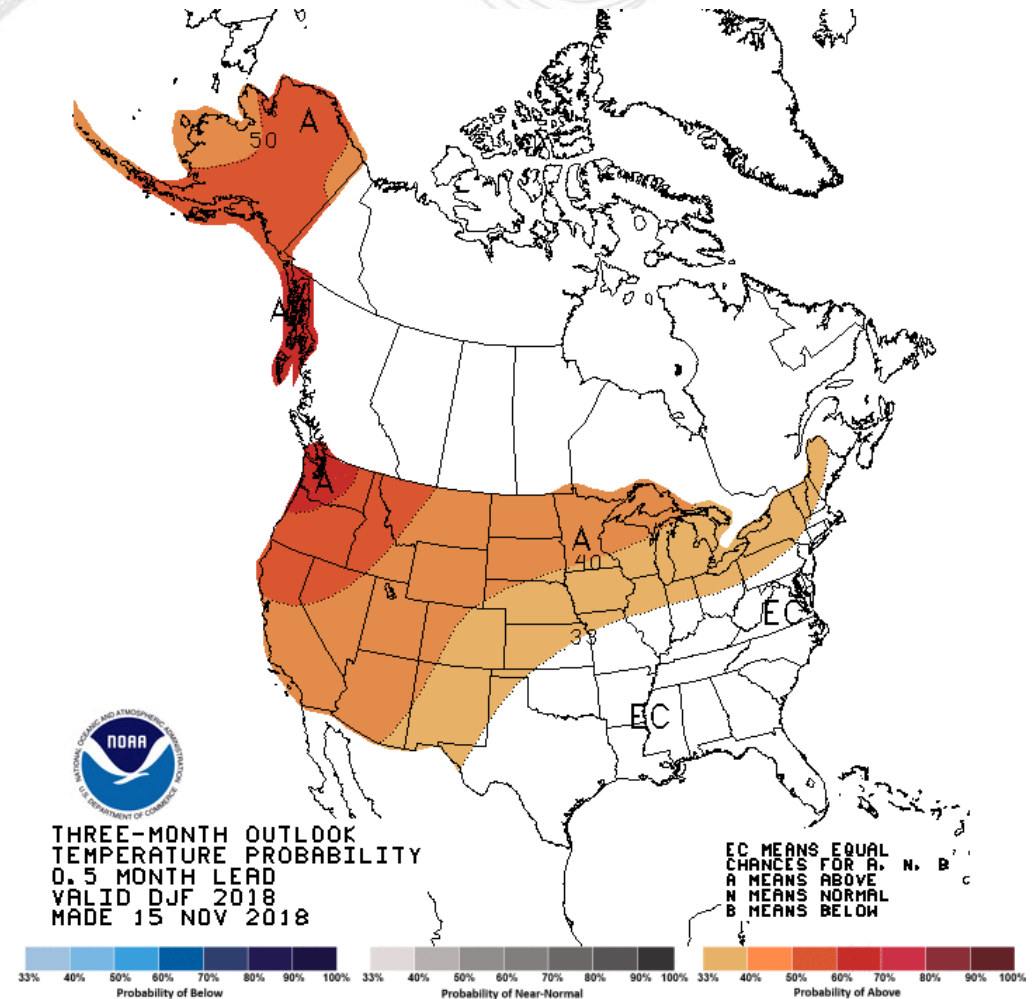


PJM Winter Outlook

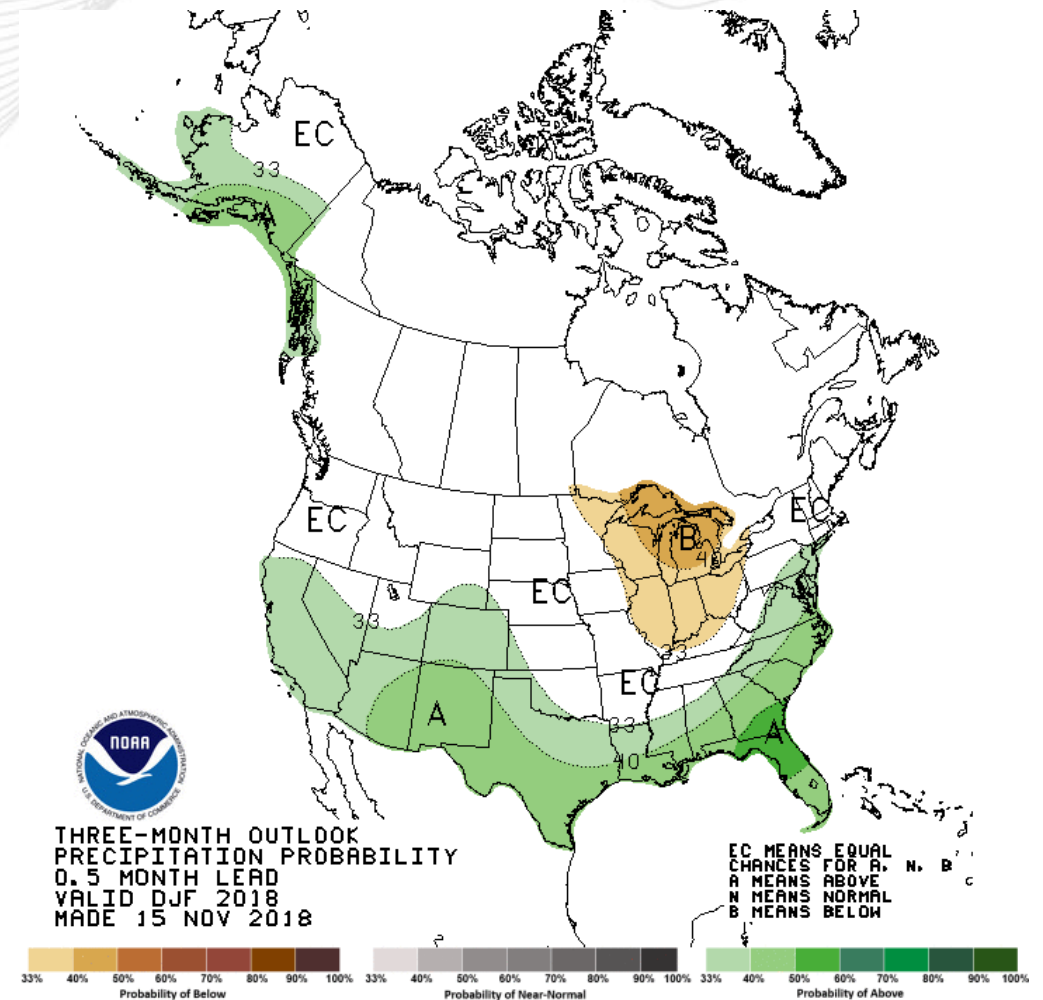
Illinois Commerce Commission
2018/19 Winter Preparedness Policy Session
November 26, 2018

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PJM State and Member Services

- Disagreement between seasonal forecasting methodologies lends a degree of uncertainty to this winter's forecast
 - Climate models – warmer
 - Analog years – near to below average temps
- Polar Vortex may weaken later in the season
 - Leads to short periods of arctic cold
 - Could result in an overall colder than average season



- Projected weak El Niño will shift storm track south
 - Could reduce precipitation in most of PJM footprint, but increase chance of coastal storms



50/50 Non-diversified Peak Load Base Case

LAS Load Forecast	135,506 MW
Preliminary RTO Net Interchange	4,400 MW** (Importing)
PJM RTO Installed Capacity	185,611 MW
Discrete Generator Outages	15,722 MW

** 4,400 MW of net interchange is modeled in the OATF base case and accounted for in the total RTO installed capacity

- No reliability issues identified for base case and N-1 analysis.
- Off-cost generation re-dispatch and switching required to control local thermal or voltage violations in some areas.
- All networked transmission voltage violations were controlled by capacitors.

Sensitivity Studies	Impact
External contingencies that could impact PJM reliability	No reliability concerns
N-1-1 Relay trip conditions	No cascading outage concerns identified <ul style="list-style-type: none"> Majority of the overloads created by radial load, only controlling action is post-contingency load dump All networked transmission overloads were controlled pre-contingency
Max-Cred Contingency Analysis	No reliability concerns
Transfer Interface Analysis	No reliability concerns
BGE/PEPCO Import Capability	No reliability concerns
90/10 Load Forecast study (138,515 MW)	No uncontrollable or unexpected issues observed at the elevated load levels.
2015 “Polar Vortex” Peak (143,338 MW)	No uncontrollable or unexpected issues observed at the elevated load levels.
Gas Pipeline Disruption Study	No reliability concerns

Action Required	Status
• Verify generator reactive capability in eDART	Complete
• Complete Seasonal Fuel & Emissions Survey in eDART	Complete
• Develop PJM list of units to participate in Cold Weather Exercise	Complete
• Complete Cold Weather Checklist in eDART	12/15/18